REMARKS

Applicant has amended Claim 1. Support for the amendment may be found, for example, on pages 29 (lines 10-20), 31 (lines 4-3), 34 (lines 13-15) and 36 (lines 10-11) of the Specification. Claims 1 and 45 have been amended to correct typographical errors. Non-elected Claims 16-44 have been canceled without prejudice. Applicant reserves the right to pursue the canceled Claims in related applications.

Applicant submits that no new matter is presented by these amendments and respectfully requests entry of the same.

Claim Rejections under 35 U.S.C. § 102 should be Withdrawn

a. Claims 1-15 and 45-59 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hacia et al. (1998). Applicant respectfully disagrees with the Office Action. However, solely to expedite the issuance of the present claims, Applicant has amended Claim 1 to recite "against a plurality of RNA transcripts." Support for the amendment may be found, for example, on pages 29 (lines 10-20), 31 (lines 4-3), 34 (lines 13-15) and 36 (lines 10-11) of the Specification. Thus, this rejection of Claims 1-15 and 45-59 under 35 U.S.C. §102(b) should be withdrawn.

b. Claims 1 and 45 are rejected under 35 U.S.C. 102 (e) as allegedly being anticipated by Lange et al. (US 6,403,314) and Claims 1-15 and 45-59 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Santalucia et al. (WO 01/94611 A2), Shannon et al. (US 6,251,588 B1) and Wolber et al. (US 6,461,816 B1). Applicant respectfully disagrees with the Office Action.

The Examiner alleges that the Applicant's argument that the above-cited references do not disclose selection of candidate probes based upon intensity difference between the probes and their control probes is based on "implied limitations to the term *predicting hybridization intensities* not present in the rejected claims." Applicant respectfully submits that Claim 1 clearly recites "**predicting hybridization intensities of a plurality of candidate probes and their corresponding control probes.**"

Lange et al. discuss a computational method for determining the hybridization potential of a probe molecule with a target molecule including predicting potential inter- and intramolecular cross-hybridization events. Lange et al. disclose "a score representing the overall stability of hybridization based on the total length of complementary fragments or based on a thermodynamic calculation...." (Column 5, lines 47-55). Lange et al. do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes.

Santalucia et al. discuss a plurality of software modules to predict and optimize probe-target hybridizations by predicting hybridization thermodynamics of a duplex, predicting the optimum primer length and determining alternative binding sites of a given primer on a given target, for example. Santalucia et al. do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes.

Shannon et al. discuss methods for predicting the hybridization potential of an oligonucleotide to its target nucleic acid. These include using certain parameters to filter a candidate probe set to obtain an optimal probe set. Shannon et al. however do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes.

Wolber et al. discuss methods for selecting target-specific oligonucleotide probes by identifying a cross-hybridization oligonucleotide probe and selecting the target-specific oligonucleotide probe based on the hybridization results. Wolber et al. however do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes.

In summary, in view of the above arguments, the rejection of Claims 1-15 and 45-59 under 35 U.S.C. §102(e) over the above-cited references should be withdrawn.

c. Claims 1 and 45 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Hyndman et al. (1996). Applicant respectfully disagrees with the Office Action.

Hyndman et al. disclose computer software for designing oligonucleotide probes specific for their targets. Hyndman et al. disclose that "using the nearest-neighbour model, the software takes into account mismatches in hybridization and calculates the melting temperature T_m or free energy for hybridization to all sequences....." (page 1090). Hyndman et al. do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes.

Moreover, Applicant respectfully submits that Claim 1 clearly recites "predicting hybridization intensities of a plurality of candidate probes and their corresponding control probes" thereby overcoming the Examiner's allegation that the Applicant's argument that Hyndman et al. do not provide selection of candidate probes based upon intensity difference between the probes and their control probes is based on "implied limitations to the term *predicting hybridization intensities* not present in the rejected claims." Hence, this rejection of Claims 1 and 45 under 35 U.S.C. §102(b) should be withdrawn.

d. Claims 1 and 45 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Schutz et al. (1999). Applicant respectfully disagrees with the Office Action.

Schutz et al. disclose spreadsheet software for calculating T_m of oligonucleotide hybridization with and without mismatches, by taking into consideration thermodynamic parameters for nearest-neighbour pairs and other parameters such as sodium buffer equivalents and DNA concentration. Schutz et al. do not disclose selecting candidate probes based on *highest intensity difference* over their corresponding control probes. Hence, this rejection of Claims 1 and 45 under 35 U.S.C. §102(b) should be withdrawn. In conclusion, Applicant respectfully submits that since none of the cited references disclose every element of the present Claims, the claim rejections under 35 U.S.C. §102 should be withdrawn.

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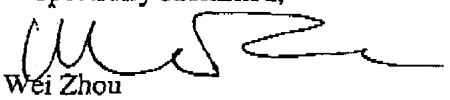
CONCLUSION

For these reasons, the Applicant believes that the application is in condition for allowance and should be passed to issue.

If the Examiner has any questions pertaining to this application or feels that a telephone conference would in any way expedite the prosecution of the application, the Examiner is requested to contact the undersigned at (408) 731-5000.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account 01-0431.

Respectfully submitted,



Wei Zhou
Reg. No. 44,419

Dated: July 8, 2004

Customer No. 22886
Legal Department
Affymetrix, Inc.
3380 Central Expressway
Santa Clara, CA 95051
Tel: 408/731-5000
Fax: 408/731-5392